List of Contents

NUMBER 1

Fikri Dweiri	1	Fuzzy development of crisp activity relationship charts for facilities layout
Tiam-Hock Eng, Zhi-Kui Ling, Walter Olson and **Chuck McLean**	17	Feature-based assembly modeling and sequence generation
Thomas Ray and **Evangelos Triantaphyllou**	35	Procedures for the evaluation of conflicts in rankings of alternatives
Amjed M. Al-Ghanim	45	A heuristic technique for generating minimal path and cutsets of a general network
Zhao Xiaobo, Zhaoying Zhou and **Ainishet Asres**	57	A note on Toyota's goal of sequencing mixed models on an assembly line
Yuan-Shin Lee, Dhaval M. Daftari and **Prakash Krishnaswami**	67	Application of virtual convex polytope in transforming protrusions for automated process planning
Ruey-Shy Guh and **Yi-Chih Hsieh**	97	A neural network based model for abnormal pattern recognition of control charts
Kap Hwan Kim and **Ki Young Kim**	109	Routing straddle carriers for the loading operation of containers using a beam search algorithm
Oliver Holthaus	137	Scheduling in job shops with machine breakdowns: an experimental study
Bryan A. Norman	163	Scheduling flowshops with finite buffers and sequence-dependent setup times
Tzung-Pei Hong and **Tzung-Nan Chuang**	179	A new triangular fuzzy Johnson algorithm
Emre A. Veral and **Ram P. Mohan**	201	A two-phased approach to setting due-dates in single machine job shops

Hui-Ming Wee and **Yu-Su Shum** 219 Model development for deteriorating inventory in material requirement planning systems

Note
Dennis Ridley 227 Combining heteroscedastic antithetic forecasts

NUMBER 2

SPECIAL ISSUE: COMPUTATIONAL INTELLIGENCE FOR INDUSTRIAL ENGINEERING

231 Foreword

S. Alireza Feyzbakhsh and **Masayuki Matsui** 233 Adam–Eve-like genetic algorithm: a methodology for optimal design of a simple flexible assembly system

Nan-Chieh Chiu, Shu-Cherng Fang and **Yuan-Shin Lee** 259 Sequencing parallel machining operations by genetic algorithms

Türkay Dereli and **İ. Hüseyin Filiz** 281 Optimisation of process planning functions by genetic algorithms

Dingwei Wang, Mitsuo Gen and **Runwei Cheng** 309 Scheduling grouped jobs on single machine with genetic algorithm

Masatoshi Sakawa and **Tetsuya Mori** 325 An efficient genetic algorithm for job-shop scheduling problems with fuzzy processing time and fuzzy duedate

Runwei Cheng, Mitsuo Gen and **Yasuhiro Tsujimura** 343 A tutorial survey of job-shop scheduling problems using genetic algorithms, part II: hybrid genetic search strategies

Dar-Li Yang and **Maw-Sheng Chern** 365 A generalized two-machine flowshop scheduling problem with processing time linearly dependent on job waiting-time

Chiung Moon and **Jaegyun Kim** 379 Genetic algorithm for maximizing the parts flow within cells in manufacturing cell design

Robert A. Kilmer, Alice E. Smith and **Larry J. Shuman** 391 Computing confidence intervals for stochastic simulation using neural network metamodels

L. Shi, S. Ólafsson and **Q. Chen**	409	A new hybrid optimization algorithm
Hidetaka Sakai, Hideki Nakajima, Minoru Higashihara, Masashi Yasuda and **Masato Oosumi**	427	Development of a fuzzy sales forecasting system for vending machines
Katsuhisa Ohno, Zhihong Jin and **Salah E. Elmaghraby**	451	An optimal assembly mode of multi-type printed circuit boards
Hark Hwang, Chae-soo Kim and **Kyung-hee Ko**	473	Performance analysis of carousel systems with double shuttle
Kenichiro Matsuzaki, Takashi Irohara and **Kazuho Yoshimoto**	487	Heuristic algorithm to solve the multi-floor layout problem with the consideration of elevator utilization

NUMBER 3

Celik Parkan and **Ming-Lu Wu**	503	Decision-making and performance measurement models with applications to robot selection
Subhashish Samaddar, Gad Rabinowitz and **Abraham Mehrez**	525	Resource sharing and scheduling for cyclic production in a computer-integrated manufacturing cell
Fuh-Der Chou and **Ching-En Lee**	549	Two-machine flowshop scheduling with bicriteria problem
Taho Yang, Maheswaran Rajasekharan and **Brett A. Peters**	565	Semiconductor fabrication facility design using a hybrid search methodology
Donald F. Rossin, Mark C. Springer and **Barbara D. Klein**	585	New complexity measures for the facility layout problem: an empirical study using traditional and neural network analysis
LeRoy A. Franklin	603	Sample size determination for lower confidence limits for estimating process capability indices
Mukundan Srinivasan and **Young B. Moon**	615	A comprehensive clustering algorithm for strategic analysis of supply chain networks

David Kraus and **Anand K. Gramopadhye**	635	Team training: role of computers in the aircraft maintenance environment
S. T. W. Wong, K. L. Mak and **H. Y. K. Lau**	655	An object-oriented model for the specification of manufacturing systems
Benita M. Beamon	673	System reliability and congestion in a material handling system
Hesham Alfares	685	A simulation model for determining inspection frequency
J.-H. Chuang, P.-H. Wang and **M.-C. Wu**	697	Automatic classification of block-shaped parts based on their 2D projections

NUMBER 4

SPECIAL ISSUE: OPERATIONAL ISSUES IN ENVIRONMENTALLY CONSCIOUS MANUFACTURING

Surendra M. Gupta, Simme Douwe P. Flapper and **Leanne Viera**	719	Preface
A. J. D. Lambert	723	Linear programming in disassembly/clustering sequence generation
H. R. Krikke, A. van Harten and **P. C. Schuur**	739	Business case Roteb: recovery strategies for monitors
V. D. R. Guide Jr., V. Jayaraman and **R. Srivastava**	759	The effect of lead time variation on the performance of disassembly release mechanisms
Carsten Nagel and **Peter Meyer**	781	Caught between ecology and economy: end-of-life aspects of environmentally conscious manufacturing
Joseph Sarkis	793	A methodological framework for evaluating environmentally conscious manufacturing programs
Askiner Gungor and **Surendra M. Gupta**	811	Issues in environmentally conscious manufacturing and product recovery: a survey

Dirk Louwers, Bert J. Kip, Edo Peters, Frans Souren and **Simme Douwe P. Flapper** 855 A facility location allocation model for reusing carpet materials